

ACKNOWLEDGEMENT COVERSHEET

FOR THE

ARTICLES OF COLLABORATION

(TO BE SIGNED BY THE PRINCIPAL MEMBER AND ALL GENERAL MEMBERS)

**U.S. ARMY RESEARCH LABORATORY (ARL)
MICRO AUTONOMOUS SYSTEMS AND TECHNOLOGY (MAST)
COLLABORATIVE TECHNOLOGY ALLIANCE (CTA)**

By signing below, the prospective Principal Member or General Member is hereby acknowledging its willingness to sign and abide by the Articles of Collaboration, as set forth in the MAST CTA Program Announcement, should the prospective Principal Member or General Member be selected for award. The signature must be from a person who is duly authorized to bind that organization under the Cooperative Agreement.

(Signature)

(Name)

(Title)

(Name of Organization)

ARTICLES OF COLLABORATION

FOR

**U.S. ARMY RESEARCH LABORATORY (ARL)
MICRO AUTONOMOUS SYSTEMS AND TECHNOLOGY (MAST)
COLLABORATIVE TECHNOLOGY ALLIANCE (CTA)**

BETWEEN

**PRINCIPAL MEMBER FOR INTEGRATION
(to be completed at award)**

**GENERAL MEMBER(S) FOR INTEGRATION
(to be completed at award)**

**PRINCIPAL MEMBER FOR MICROSYSTEM MECHANICS RESEARCH CENTER
(to be completed at award)**

**GENERAL MEMBER(S) FOR MICROSYSTEM MECHANICS
(to be completed at award)**

**PRINCIPAL MEMBER FOR PROCESSING FOR AUTONOMOUS OPERATION
RESEARCH CENTER
(to be completed at award)**

**GENERAL MEMBER(S) FOR PROCESSING FOR AUTONOMOUS OPERATION
(to be completed at award)**

**PRINCIPAL MEMBER FOR MICROELECTRONICS RESEARCH CENTER
(to be completed at award)**

**GENERAL MEMBER(S) FOR MICROELECTRONICS
(to be completed at award)**

ARTICLES OF COLLABORATION
FOR THE
U.S. ARMY RESEARCH LABORATORY (ARL)
MICRO AUTONOMOUS SYSTEMS AND TECHNOLOGY (MAST)
COLLABORATIVE TECHNOLOGY ALLIANCE (CTA) CONSORTIUM

ARTICLE I - THE CONSORTIUM AND THE AGENCY AWARD INSTRUMENT

These Articles of Collaboration (herein after referred to as the “Articles”) are entered into by and among the following Members:

Principal Members:
(to be completed at award)

General Members:
(to be completed at award)

WHEREAS, the Members have complementary research interests and desire to engage in cooperative fundamental research and technology transfer both among themselves, the Army, other DOD, Government Agencies and commercial clients in the area of Micro Autonomous Systems and Technology (MAST), to include; Microsystem Mechanics, Processing for Autonomous Operation, Microelectronics, and Integration; and

WHEREAS, the Members desire to cooperate to contribute resources and perform tasks specified in a Cooperative Agreement issued pursuant to the authority of 10 U.S.C. 2358, hereinafter referred to as the “Agency Award Instrument,” entered into by the aforementioned Principal and General Members, and anticipate receiving funding from the Agency for that purpose; and,

WHEREAS, the Members desire to be bound together by these Articles as a Consortium, in accordance with the National Cooperative Research and Production Act of 1993 (15 USC 4301) and the Agency Award Instrument; and,

WHEREAS, the Members recognize the Technology Transition Contract awarded by the Agency to the Principal Member for Integration and desire to cooperate and participate as appropriate to transfer the technology generated under the Agency Award Instrument to military and other Government applications; and

WHEREAS, the Members recognize the need to remain compliant with the terms and conditions set forth in both the Agency Award Instrument and these Articles; and

WHEREAS, if a conflict should arise between these Articles and the Agency Award Instrument, the Agency Award Instrument will take precedence;

NOW THEREFORE, the parties agree to the following:

- 1.1. The “Consortium” is comprised of the Principal and General Members set forth above.
- 1.2 “Principal Members” and “General Members” of the Consortium shall have the rights and privileges under these Articles and shall be bound by the conditions set forth in these Articles upon execution by all Principal Members and General Members.
- 1.3 “Subawardees” are organizations that (1) may not be involved long-term in the MAST CTA; (2) are not expected to provide strategic input concerning the goals and direction of the MAST CTA; and (3) are expected to have limited involvement in transition. Subawardees are not considered Consortium Members, and as such are not signatories to these Articles.
- 1.4 “Participants” as used in these Articles refers to Consortium Members and Subawardees.
- 1.5 The “Agency” for purposes of these Articles and the Agency Award Instrument shall be the U.S. Army Research Laboratory (ARL).
- 1.6 The “Alliance” is comprised of the Consortium, the Agency and other Government Agencies that have been designated by the Agency to participate in the MAST CTA.
- 1.7 The “Agency Award Instrument” is the Cooperative Agreement that is awarded by the Agency to the Consortium. All Consortium Members (Principal and General) are signatories to the Agency Award Instrument.
- 1.8 “Program Plan” (Initial [IPP] and Annual [APP]) are the documents that detail the scope, schedule, principal investigators, other key researchers, collaboration, staff rotation, and educational opportunities for the research activities. It also includes the financial expression of the project, which serves as the resource allocation/commitment for the research activities. The Program Plans constitute the necessary “statement of work” and authorization document for each research project or task expected to be executed in the ensuing year. Each Program Plan will include a budget that will include the sum of both Federal and non-Federal shares, as appropriate, and the expected distribution of same. The IPP is expected to be primarily based upon final proposal submissions in response to the MAST CTA Program Announcement. Subsequent APPs will be prepared jointly by the Consortium and the Agency.

- 1.9 Each “Employee” of a Member shall be either one working on behalf of that Member, or a consultant and shall be subject to at least the same obligations with respect to confidentiality and ownership of intellectual property as are persons on that Member’s payroll.
- 1.10 The “Grants Officer” is the sole Agency Representative authorized to enter into, administer, or terminate the Cooperative Agreement.
- 1.11 The “Technology Transition Contract” is the procurement contract awarded by the Agency to the Principal Member for Integration under which the results of the research program will be transferred to military and other Government applications.
- 1.12 “Intellectual Property” as used in these Articles is defined to include, but is not limited to; inventions, reports, technical data, computer software, computer codes and designs.
- 1.13 The “Cooperative Agreement Manager (CAM)” is the Agency’s technical representative charged with the overall technical management and responsibility for the Agency Award Instrument.
- 1.14 The “Program Director” is the Consortium’s technical representative charged with the Consortium’s overall responsibility for management of the Agency Award Instrument.
- 1.15 The “Center Directors” are the technical representatives (one for each of the three Research Centers) that are responsible for the Center’s technical leadership, management and guidance.
- 1.16 The “Consortium Management Committee” is responsible for the management and integration of the Consortium’s efforts under the MAST CTA including programmatic, technical, monitoring, financial and administrative matters. The CMC consists of one representative from each Principal and General Member. The Collaborative Alliance Manager (CAM) participates as ex officio member in all discussions except those that deal with purely internal Consortium matters. The CMC will be chaired by the MAST Program Director. Each Principal Member will have one vote on the CMC to support programmatic and management-related activities and decisions. General Members are expected to be active participants in the CMC, but they do not have a vote. General Members are to be represented on the CMC for voting purposes by the Principal Member in the area under which they are a General Member. However, the Principal Member may select a proxy from among the General Members it represents to cast a vote when the Principal Member is unable. Decisions by the CMC are to be made by a simple majority vote. In the event of a tie, the Principal Member for Integration will cast the deciding vote.

ARTICLE 2 CONSORTIUM ESTABLISHED

The parties hereby establish the Consortium to engage in a collaborative research effort with a period of performance stipulated in the Agency Award Instrument. The goal of the Consortium is to provide creative, innovative, and flexible approaches to collaborative research, integration, and demonstrations for the MAST Program. This research is expected to result in technology transition efforts, to be performed under the Technology Transition Contract, the aim of which is to generate and exploit technology designed to solve pressing MAST related military and commercial sector problems.

2.1 Types of Members

2.1.1 Principal Members

2.1.1.1 Principal Member for Integration (also the Consortium Lead) – The Principal Member for Integration is expected (but not required) to be a US industrial concern with significant existing operations in order to support research and transition activities associated with the MAST CTA. Significant operations are defined as having the ability to perform research and support activities, utilizing in-house engineers and scientists. The Principal Member for Integration has primary responsibility for articulating and executing a vision on cross-Consortium integration. This Member is expected to articulate a vision for the MAST CTA, promote collaboration among Principal Members, promote collaboration between Principal Members and members of the Alliance, and coordinate crosscutting themes with Principal Members. This Member is required to administer, integrate, and manage the Consortium, participate in the research, and promote the transition of technologies resulting from the research program of the MAST CTA. This includes distribution of Government funding to Consortium Members (directly to both the other Principal Members and the General Members) in accordance with the approved IPP/APP under the Agency Award Instrument. Leadership from this Member is expected to enhance the potential for transition of the resultant technology into both the commercial and military marketplaces. The Principal Member for Integration will propose a MAST Program Director who will be subject to CAM approval and who will serve as the primary individual for Consortium activities.

2.1.1.2 Research Center Principal Members - Each Principal Member of the three research Centers is required to be an advanced degree-granting educational institution under the Higher Education Act of 1965 as amended. Further, these Principal Members will have doctoral level courses of study in related scientific and technical areas that can result in the granting of a doctoral degree. These Principal Members are expected to participate in the research program with their researchers being substantially and meaningfully engaged in the MAST CTA. These Principal Members are also to promote the transition of technologies resulting from the research program. Principal Members will work closely with their respective General Members to ensure research progress and compliance with the terms and conditions of the Agency Award Instrument and these Articles. Each Research Center Principal Member will propose a Center

Director who will be subject to CAM approval and will serve as the primary individual for activities within the Research Center.

2.1.2 General Members - Each Principal Member may include General Members to participate with them in the research program. It is expected that each Principal Member will have no more than three General Members. In order to meet the goals of the MAST CTA, it will be necessary to maintain a critical mass of research capabilities; however, an excess number of members in one research area may dilute the funding levels to the point that it renders the program goals unattainable. In order to be considered a General Member: (1) a long-term relationship with the organization is envisioned under the MAST CTA, wherein researchers are substantially and meaningfully engaged in the Fundamental Research Component; (2) said organization's input is considered necessary and beneficial for the strategic planning associated with the research program; and (3) said organization is expected to be involved in transition.

2.1.3 Historically Black College or University/Minority Institution (HBCU/MI) Members - Army policy strongly encourages involvement of Historically Black Colleges and Universities (HBCU) or Minority Institutions (MI) in this effort. HBCU, as used in these Articles, means institutions determined by the Secretary of Education to meet the requirements of 34 Code of Federal Regulations (CFR) Section 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986. MI, as used in these Articles, means institutions meeting the requirements of the Higher Education Act of 1965 as amended (20 U.S.C. 1067k(3)). The term also includes Hispanic-serving institutions as defined in such Act (20 U.S.C. 1101a). At least 10% of the funding for the three research Centers must be provided to HBCU/MI Member(s). HBCU/MI Members may be Principal Members or one of what is expected to be not more than three General Members.

2.1.4 Subawardees - Principal and General Members may be augmented, e.g. with academic or industrial concerns, as necessary and appropriate to meet the goals of the MAST CTA. Subawardees are not considered Members of the Consortium. Subawardees are organizations that (1) may not be involved long-term in the MAST CTA; (2) are not expected to provide strategic input concerning the goals and direction of the MAST CTA; and (3) are expected to have limited involvement in transition.

2.1.5 Federally-Funded Research and Development Centers (FFRDCs) – FFRDCs may participate as General Members or Subawardees but may not function as a Principal Member. Further, FFRDCs must cost-share an amount equal to the funding to be provided to them under the MAST CTA.

2.2 Changes in Consortium Membership - The Members recognize the potential ten-year period of performance of the Agency Award Instrument, recognize that the focus of the research program may shift during performance to further the MAST CTA goals, and recognize that this may impact Consortium Membership. As a result, the Members agree to the following:

2.2.1 Resignation/Removal of Consortium Members –

2.2.1.1 Resignation of any General Member - Any General Member may resign or withdraw without penalty or risk from the Consortium at will upon thirty (30) days prior written notice to the MAST Program Director. During the 30 day notice period, the resigning General Member shall conclude its efforts in an orderly manner so as not to adversely impact the Consortium objectives. Actual and reasonable costs incurred including non-cancellable commitments before the effective date of resignation or withdrawal and not incurred expressly in anticipation of the action will be paid to the resigning or withdrawing member. A resigning or withdrawing General Member shall make diligent effort to transfer its assigned tasks and results to the Consortium Member(s), if any, designated by the CMC to replace the resigning Member in performing such tasks. In the event such transfer effort extends beyond the 30-day period, then upon approval of the MAST Program Director, actual and reasonable costs properly incurred in order to affect the transfer and not incurred expressly in anticipation of the action will be paid to the resigning or withdrawing Member. The resigning or withdrawing General Member shall provide the Consortium with a royalty free, nontransferable, non-exclusive license to use its Consortium Intellectual Property solely for the performance under the MAST CTA Program before its resignation is complete.

2.2.1.2 Resignation of the Principal Member for Integration - The Principal Member for Integration (also the Consortium Lead), due to its extensive role and involvement, will be required to provide a minimum of 180 days notice of its intent to resign or withdraw from the Consortium. Notification by the Consortium Lead of its intent to resign or withdraw must be made at the quarterly CMC Meeting at which time, the 180 day period of succession will begin. During the 180 day notice period, the resigning Principal Member for Integration shall conclude its efforts in an orderly manner so as not to adversely impact the Consortium objectives. Actual and reasonable costs incurred including non-cancellable commitments before the effective date of resignation or withdrawal and not incurred expressly in anticipation of the action will be paid to the resigning or withdrawing Principal Member for Integration. Election of a new Consortium Lead is expected to take place within 60 days of notification at which time designation of a new Consortium Lead can be accomplished by a simple majority vote of the CMC. First consideration to this replacement will be given to remaining Members. If a successor cannot be found within the remaining Members, or Members are unwilling or unqualified; the Members will seek out, investigate, negotiate with, and approve a Consortium Lead from outside the Consortium. In all cases, the CAM will participate in the transition/approval process. The Consortium Lead will make diligent effort to transfer its assigned Consortium tasks and results to the Members and the new Consortium Lead. The resigning or withdrawing Principal Member for Integration shall provide the Consortium with a royalty free, nontransferable, non-exclusive license to use its Consortium Intellectual Property solely for the performance under the MAST CTA Program before its resignation is complete. The CMC will meet as frequently as every 30 days during the succession period of the Consortium Lead in an effort to make a smooth transition.

2.2.1.3 Resignation of a Principal Member for a Research Center - A Principal Member for a Research Center, due to their role and involvement, will be required to provide a minimum of 90 days notice of its intent to resign or withdraw from the Consortium. Notification by the Principal Member of its intent to resign or withdraw must be made at the quarterly CMC Meeting at which time, the 90 day period of succession will begin. During the 90 day notice period, the resigning Principal Member shall conclude its efforts in an orderly manner so as not to adversely impact the Consortium objectives. Actual and reasonable costs incurred including non-cancellable commitments before the effective date of resignation or withdrawal and not incurred expressly in anticipation of the action will be paid to the resigning or withdrawing Principal Member. Election of a new Principal Member is expected to take place within 60 days of notification at which time designation of a new Principal Member can be accomplished by a simple majority vote of the CMC. First consideration to this replacement will be given to remaining Members. If a successor cannot be found within the remaining Members, or Members are unwilling or unqualified; the Members will seek out, investigate, negotiate with, and approve a Principal Member from outside the Consortium. In all cases, the CAM will participate in the transition/approval process. The Principal Member will make diligent effort to transfer its assigned Consortium tasks and results to the new Principal Member or the Consortium, as appropriate. The resigning or withdrawing Principal Member for a Research Center shall provide the Consortium with a royalty free, nontransferable, non-exclusive license to use its Consortium Intellectual Property solely for the performance under the MAST CTA Program before its resignation is complete.

2.2.1.4 Removal of a Member - The CMC may by a simple majority vote, remove a Member from the Consortium with a thirty (30) day written notice, if that Member is not performing the tasks assigned to it under the Agency Award Instrument. In addition, the CMC, by a simple majority, reserves the right to remove a Member who commits a significant violation of these Articles, or is found not to be reasonably cooperating with the Consortium and its Members in activities contemplated by these Articles. Should a Member be removed, all actual and reasonable costs incurred by the Member up to and including the date of removal shall be reimbursed, only if those costs are not incurred expressly in anticipation of the action. The Member being removed shall conclude its efforts in an orderly manner so as not to adversely impact the Consortium objectives. The Member being removed shall make diligent effort to transfer its assigned tasks and results to the Consortium Member(s), if any, designated by the CMC to replace the resigning Member in performing such tasks. The Member being removed shall provide the Consortium with a royalty free, nontransferable, non-exclusive license to use its Consortium Intellectual Property solely for the performance under the MAST CTA Program within 30 days of its removal from the Consortium. Should it be necessary to remove a Principal Member, election of a new Principal Member is expected to take place within 30 days of removal of the Member, with a simple majority vote by the CMC.

2.2.2 Addition of Members - The CMC may admit new Members to the Consortium, subject to the approval of the CAM.

2.2.2.1 New Consortium Members must meet the following qualifications:

- must be judged to have adequate financial and technical resources, given those that would be made available through the cooperative agreement, to execute the program of activities envisioned;
- must have no known recent record of lack of responsibility or serious deficiency in executing such programs or activities;
- must have no known recent record indicating a lack of integrity or business ethics; and
- must be otherwise qualified and eligible to receive an award under applicable laws and regulations.

2.2.2.2 The admission of a New Member or the change in status of a Member shall become effective upon:

- A simple majority vote of the CMC;
- Approval of the potential New Member or the change in status of an existing Member by the CAM;
- Execution by the New Member of an amendment to these Articles signifying their participation, or in the case of the change in existing membership status, executing an amendment to these Articles recognizing their new status; and
- Execution of a modification to the Agency Award Instrument by the Grants Officer to add the New Member.

ARTICLE 3 CONSORTIUM MANAGEMENT

The parties hereby agree to abide by the Program Management structure described in the Agency Award Instrument that includes both internal and external management direction.

The Principal Member for Integration and the CMC - The Principal Member for Integration is empowered to act as the executing agent for the Consortium in carrying out the decisions of the CMC. The CMC may delegate to the Principal Member for Integration certain administrative responsibilities to be handled on behalf of the Consortium. The Principal Member for Integration will effect any changes to the Agency Award Instrument necessitated by the decisions of the CMC on behalf of the Consortium, unless otherwise required by the CMC or the Grants Officer.

ARTICLE 4 PROGRAM PLANS

4.1 Initial Program Plan (IPP) - Within 90 days after award of the Agency Award Instrument, the Consortium (through the CMC) and the Agency will jointly prepare an Initial Program Plan (IPP) to cover the first 12 months of performance. The IPP will be based substantially on the final proposals received by each of the four Principal Members prior to award of the Cooperative Agreement. Each of the Principal Members will share their proposed portion of the IPP with the other Principal Members. Through discussion among the Principal Members and the Agency, an

IPP will result that enables integration and execution of crosscutting themes that strive to achieve

MAST CTA objectives. The IPP will be accompanied by a five-year roadmap that describes the overall plan to be accomplished by the Consortium within the Alliance structure. This roadmap should provide the vision for grand challenges and crosscutting themes to be addressed in the first five years. The roadmap should provide a detailed description of a well-coordinated theory and experimental program for the first two years; it should present and justify an appropriate balance between theory and experiments. The CAM will approve the IPP and formally submit the approved IPP to the Grants Officer for incorporation into the Agency Award Instrument.

4.2 Annual Program Plan (APP) - Eight months after award of the Agency Award Instrument, the Consortium (through the CMC) and the Agency will jointly prepare a proposed Annual Program Plan (APP) for the next annual period. As in the case of the IPP, each of the Principal Members will prepare their proposed portion of the APP and share such with the other Principal Members. Through discussion among the Principal Members, an APP will result that enables integration and execution of crosscutting themes that strive to achieve MAST CTA objectives. The Executive Steering Board (ESB), consisting of senior level Army personnel, will provide guidance on the research directions of the Consortium to support US Army future forces requirements. The CAM will approve the APP and formally submit the approved APP to the Grants Officer for incorporation into the Agency Award Instrument. This process will continue through the life of the Agency Award Instrument.

4.3 The IPP/APPs will cover a one-year timeframe, but may be altered, with the approval of the CAM and the Grants Officer, if research work requirements change. The IPP/APPs will provide a detailed plan of research activities (including key personnel, educational opportunities, staff rotation, facilities, demonstrations and budget) that commits the Consortium to use their best efforts to meet specific research objectives. The IPP/APPs will also describe the collaborative efforts with the Government. The IPP/APPs constitute the necessary “statement of work” and authorization document for each research project or task expected to be executed in the ensuing year. The IPP/APPs will include a budget that will include the sum of both Federal and non-Federal shares, as appropriate, and the expected distribution of same. During the course of performance, if it appears that research goals will not be met, Members should bring this to the attention of the CMC, and discuss the proposed course of action with the CMC. The CMC will provide a proposed adjustment to the IPP/APPs for approval by the CAM. In addition, the CAM may from time to time request that additional research be added to the IPP/APPs within the scope of the Agency Award Instrument. The Consortium, as an entity, will not solicit or accept funding from outside sources other than the Agency without the approval of the CAM and the Grants Officer.

4.4 Novel Research Projects – The Agency Award Instrument indicates that the Agency reserves the right to withhold up to 10% of annual funding for the MAST CTA provided to the Agency through the appropriation process to fund novel research projects under the scope of the Agency Award Instrument. These novel research projects are expected to be funded under the Agency Award Instrument, and these projects may be proposed and performed by Consortium Members,

as well as entities not currently Members of the Consortium. Members of the Consortium are to bring to the attention of the CMC novel research projects that may be subsequently proposed to the Agency by the CMC for funding under the Agency Award Instruments.

ARTICLE 5 ADMINISTRATIVE RESPONSIBILITIES

The parties agree that administrative responsibilities associated with financial matters, manpower, facilities and equipment, and reporting requirements are to be handled in accordance with the Agency Award Instrument and as follows:

5.1 Financial Responsibilities - Through execution of these Articles the Members authorize the Principal Member for Integration (Consortium Lead) hereinafter referred to as the “Lead” to receive and disburse Agency funds on behalf of the Consortium, and collect payments from the Agency on behalf of the Consortium. This responsibility includes ensuring that Members submit their appropriate documentation timely. Members recognize that failure to do so may result in payment delays or reductions in program funding. The IPP/APP will serve as the baseline for Member funding. Funding disbursement is dependent upon the availability of Agency funding. It is understood that the Government’s liability to make payments to the Consortium is limited to only those funds obligated under the Agency Award Instrument or by amendment to the Agency Award Instrument. Payments are expected to be made on a monthly basis. Members are responsible for the distribution of funds and subsequent payments to their respective Subawardees.

5.2 Manpower Responsibilities - Each Member shall make a good faith effort to provide those personnel identified in their respective proposal for the execution of research tasks as defined therein and subsequently in the resultant IPP/APPs.

5.3 Facilities and Equipment Responsibilities – Each Member shall provide appropriate facilities and equipment for Alliance researchers for the execution of research tasks under the IPP/APPs. This includes reasonable access for Alliance Members to support research and demonstration efforts at the Member’s facility, at times and places agreed to in advance so as not to disrupt other work. Any cost associated with the usage of facilities and equipment under the IPP/APPs may be borne under the Agency Award Instrument, so long as such cost was included in the budget associated with the IPP/APPs. Each Member shall provide reasonable and adequate office and administrative support and facilities (phone, personal computer, etc.) for Alliance researchers performing research or technology transfer related activities at the Member facility. Any restrictions to the access or use of any facilities and equipment need to be clearly set forth in the IPP/APPs. By signing these Articles the Members agree to comply with the applicable safety, environmental, security and operational regulations and policies while performing MAST efforts at any Alliance host facility.

5.4 Reporting Responsibilities – Reporting requirements are set forth in the Agency Award Instrument. The Principal Member for Integration is responsible for submission of reports required by the Agency Award Instrument. All other Members are responsible for timely submission of appropriate information and documentation for the generation of these reports.

ARTICLE 6 COLLABORATION

The parties recognize and agree that the MAST Program will only succeed through the development and maintenance of a fully collaborative research environment. This collaborative research environment should take advantage of outreach activities and on-line presence, along with other novel approaches to fostering collaboration through the efficient exchange of scientific ideas. Thus, the Members agree to put forth a good faith effort to collaborate not only with other Members, but all other participants in the Alliance. Areas of consideration include, but are not limited to:

6.1 HBCU/MI Collaboration - Meaningful involvement of Historically Black College or Universities or other Minority Institutions (HBCU/MIs) is mandatory. Specific collaborative efforts and outreach programs with HBCU/MIs will be set forth in the IPP/APPs. This will include significant HBCU/MI involvement in the execution and management of the research program.

6.2 Lectures and Workshops - The Alliance may hold technical lectures and workshops on mutually agreed upon topics. The lectures and workshops should be open to all appropriate personnel. The costs associated with the Consortium's efforts for these lectures and workshops will be funded under the Agency Award Instrument, but these costs must be included in the budget associated with the IPP/APP governing the time period of the lecture or workshop. Thus, Members should include plans for proposed lectures and workshops to be considered as part of the IPP/APP formulation process.

6.3 Education - As a means to foster the professional growth and technical strength of the Agency and to provide a source for training personnel in fields underlying the Alliance, the Consortium will identify educational opportunities for Agency scientists and engineers who perform research and development in fields related to the research program. The costs associated with the Consortium's efforts to identify, prepare for and execute such educational opportunities will be funded under the Agency Award Instrument, but these costs must be included in the budget associated with the IPP/APP governing the time period for the educational opportunity. Thus, Members should include plans for educational opportunities to be considered as part of the IPP/APP formulation process. The cost associated with salaries, travel, etc. for Agency personnel will be the responsibility of the Agency, and will not be funded under the Agency Award Instrument.

6.4 Staff Rotation - A foundation of the CTA process is the rotation of technical staff through short- and long-term temporary assignments among the Alliance Members, and particularly rotations between the government members and the private sector members. This staff rotation will be undertaken to foster and facilitate collaborative research where face-to-face interaction is advantageous, to enable a researcher to utilize unique facilities, and to facilitate the exchange of research results. All salary and travel costs associated with the rotation of Agency personnel will be borne by the Agency. All salary and travel costs associated with staff rotations of Consortium Member personnel (to include subawardee personnel) will be funded under the Agency Award Instrument, but these costs must be included in the budget associated with the IPP/APP governing the time period for the staff rotation. Thus, Members should include such plans for staff rotation to be considered as part of the IPP/APP formulation process. It is anticipated that these rotations will be both of a short term (several weeks) and long term (one year or more), as well as intermittent rotations, and will be coupled with appropriate shorter periods of travel to optimize the output of collaborative research efforts.

6.5 Demonstrations - A key aspect of collaboration between Alliance Members is the ability for the Consortium to convincingly demonstrate and showcase technologies developed under the MAST CTA. Such demonstrations might be made to interested individual Government scientists and engineers, as well as to Army and DoD science and technology leaders with a need to understand the opportunities offered by the technologies under study in the MAST CTA. Each Principal Member will be required to provide for such demonstrations during performance, and must highlight those demonstrations as part of the IPP/APP.

6.6 Annual Conference - The Consortium will be responsible for participating with the Agency in an Annual Program Formulation Conference to display and present the results of its previous year's research and describe plans for the next year. Program overviews, posters, and exhibits and demonstrations will be presented, displayed, or both to communicate the research products of the MAST CTA. The Conference will foster interactions and collaborations among researchers. Planning for the Conference will be executed through the Principal Member for Integration (Consortium Lead) and the CAM; however Consortium Members may be called upon to participate in the planning and execution of this event.

ARTICLE 7 DISPUTE RESOLUTION PROCEDURES

Disagreements between Members relating to these Articles or which arise during performance under the Agency Award Instrument and any IPP/APP defined thereunder ("Dispute") shall be resolved by negotiation and application of Alternative Dispute Resolution (ADR) techniques to the maximum extent practicable. Members agree to an escalating series of non-binding dispute resolution procedures prior to filing for relief in any state or federal court, except in cases where immediate or irreparable harm exists. The Members acknowledge that irreparable harm may

exist in disputes relating to intellectual property. Within five business days of receiving written notice that one or more Members has a dispute with one or more other Members, the disputing Members and any other interested Members shall meet and negotiate in good faith for a period not to exceed five business days to resolve such dispute. If good faith negotiation between the Members does not result in resolution each Member involved shall nominate one officer, director or manager having a position not less than vice president, or an equivalent, to participate in additional good faith negotiations (“Senior-Level Negotiations”) within ten business days after the first negotiation. If such Senior-Level Negotiations do not result in resolution of the dispute, the disputing Members shall each submit a written statement within five business days to a third party mediator selected by the majority of the disputing Members. The disputing Members and the mediator shall meet within five business days of the written submission for non-binding mediation session. The cost of mediation shall be shared equally by the disputing Members. Participation in the foregoing dispute process is not intended to preclude any Member from filing action in law or equity upon its conclusion or in cases where a threat of immediate and irreparable harm exists.

ARTICLE 8 INTELLECTUAL PROPERTY

Success of the MAST CTA is dependent on the establishment and maintenance of a collaborative research environment that encourages and facilitates the sharing of intellectual property while providing adequate protection of ownership rights. Per the Agency Award Instrument, the Federal Government shall obtain “Government Purpose Rights” to Intellectual Property (i.e., patents, copyrights, restricted data and software) developed in the course of performing under the cooperative agreement. (see 37 CFR Part 401, 32 CFR 32.36, and 34 CFR 34.25 included by reference in the Agency Award Instrument). With respect to works that a member may assert copyright the Government shall have the right to obtain, reproduce, publish or otherwise use the work for Federal purposes. With respect to subject inventions that a member may patent the Government shall have the right to practice or have practice for or on behalf of the United States the invention throughout the world. Members will cooperate with the Agency in all reasonable respects to perfect the Government’s Rights. The Government’s “Government Purpose Rights” do not include commercial application. Members recognize the emphasis of the MAST CTA on the transition of technology to the military and other Government applications. Thus, the Members will cooperate with the Agency in transferring or otherwise making available rights to intellectual property generated under the Agency Award Instrument for use on technology transition tasks to be performed under the Technology Transition Contract.

8.1 Consortium Intellectual Property – “Consortium Intellectual Property” means that intellectual property made or created by a member (or Subawardee) in the course of performing tasks with Consortium funding, which includes Agency funding or cost share recognized in the Agency Award Instrument. These tasks shall be those tasks that are specified in the Agency Award Instrument, the IPP/APP; or agreed to by the Member and the Consortium in any separate written agreement between the Consortium and the Agency and/or another Government Agency.

8.2 Excluded Intellectual Property – “Excluded Intellectual Property” means intellectual property that was not made or created by a member (or Subawardee) in the course of performing tasks with Consortium funding, which includes Agency funding or cost share recognized in the Agency Award Instrument.

8.3 Non-Exclusive License to Members – Each Consortium Member hereby grants to all other Members a

nonexclusive, royalty-free, non-sublicenseable, non-assignable, license to Consortium Intellectual Property for the limited purpose of performing tasks under the Agency Award Instrument, for Government purposes only, and to make and have the same made solely for such use.

8.4 Ownership – Each Member has the option to retain sole title ownership to Consortium Intellectual Property created solely by its employees. Consortium Intellectual Property made or created jointly among Consortium Members shall be jointly owned by such Members.

8.5 Patents

8.5.1 Patent Filing – Solely Owned Inventions – Each Member electing to retain sole title to inventions made solely by its employees shall be subject to the obligations and conditions set forth in 37 CFR Part 401, Section 401.14.

8.5.2 Patent Filing – Jointly Owned Inventions – In the event that an invention is jointly made by employees of more than one Member (“Inventing Members”) during the performance of the Award Instrument:

- Each Member electing to retain title to its ownership interest it received through its employees shall be subject to the obligations and conditions set forth in 37 CFR Part 401, Section 401.14;
- Said Inventing Members shall jointly determine whether an application(s) for patent(s) shall be filed on such joint invention, the identity of the Member(s) who will prepare and file such applications(s), and the countries in which such application(s) will be filed;
- Unless otherwise agreed by the Inventing Members, the actual out-of-pocket expenses of patenting such joint invention shall be divided equally between the Inventing Members, provided that, when one Inventing Member elects not to share equally in the expenses, the other Inventing Member(s) shall have the right to seek or maintain such protection for such joint invention at its (their) own expense and shall be granted by the non-paying member full control over the preparation, prosecution and maintenance of the patent application and issuing patent(s), even though title to any issuing patent will be jointly owned.

8.5.3 Disclosure and Prosecution of Consortium Inventions – Member(s) will report in writing to the MAST Program Director, or his designee, each subject invention within three (3) months after the Member(s) inventor discloses it in writing to Member personnel responsible for patent matters, or within six (6) months after the Member becomes aware of the subject invention, whichever is earlier. At the time of such reporting, the Member will provide the MAST Program Director with a copy of such invention disclosure along with an abstract of the subject invention. The MAST Program Director, or his designee, will report the invention to the CAM, or another entity, as provided in the Agency Award Instrument. Any Member may obtain a copy of the above disclosure from the Mast Program Director, or his designee, and will respect the inventions confidentiality. Members will also notify the Mast Program Director, or his designee, of any publications, sale, offer for sale or public use of the subject invention, and whether a manuscript has been submitted for publication at the time of the disclosure, or anytime thereafter until the filing of a patent application. Members will also notify the MASA Program Director, or his designee, promptly of any filing of a patent application, decision not to file, pay maintenance fees, continue prosecution or defend in reexamination or opposition proceeding any patent or patent application or a subject invention.

8.6 No Accounting – Subject to the licenses granted or to be granted according to the terms of these Articles, or any separate written agreement to the contrary, each Member shall have the right to license its solely owned or jointly owned Consortium Intellectual Property to any third party, independently and at such royalty rates and upon such terms and conditions as it may determine. All royalties resulting from

such licensing may be retained solely by the licensing Member without a requirement for accounting to any other Member.

8.7 Obligation to Negotiate – All Members agree, to the extent rights are available, to negotiate with other Members licenses for consideration with reasonable terms and conditions to Consortium Intellectual Property which they own, solely or jointly, for purposes other than performance of tasks under the Agency Award Instrument.

ARTICLE 9 INFORMATION EXCHANGE GUIDELINES

WHEREAS, each of the Consortium Members (“Owners”) has technical expertise pertaining to certain Intellectual Property including, but not limited to: inventions, reports, technical data, computer software, computer codes, designs, trade secrets marketing and proposal pricing information related to the MAST CTA Program which is appropriately considered to be commercially sensitive and proprietary (“Proprietary Information”); and

WHEREAS, Owners recognize that the success of the MAST CTA is dependent upon the exchange of said Proprietary Information; and

WHEREAS, each Owner agrees to exchange this commercially sensitive Proprietary Information for purposes of performing under the MAST CTA Agency Award Instrument; and

WHEREAS, each of the Members wish to have their Proprietary Information protected from unauthorized use, reproduction, or disclosure;

NOW THEREFORE, the Members hereto agree to the following Information Exchange Guidelines as follows:

9.1 Each Member agrees that it will, to the extent it protects its own Proprietary Information, but to not less than a reasonable extent, protect from unauthorized use, reproduction, and disclosure and will not disclose to any person outside its respective company/organization (other than Representatives of ARL, other Government Agencies, and other Members as identified herein) or to any person within its respective company/organization not having a need to know for the purposes of the Agency Award Instrument (“Instrument”) and will not use or reproduce, except for the purposes of this agreement, any Proprietary Information:

- a) which is disclosed hereunder to such Member in writing, whether tangible or electronic, and is designated by an appropriate stamp, marking or legend thereon to be of a proprietary, confidential or commercially sensitive nature to the Owner; or
- b) which is orally or visually disclosed to such Member and is identified at time of disclosure as being proprietary or commercially sensitive to the disclosing Member, provided that, within thirty (30) days of such oral or visual disclosure, the disclosing Member reduces the subject matter of the disclosure to a tangible or electronic form properly identified in the manner described above and delivers it to the receiving Member.

9.2 All Members acknowledge that the purpose of this Article is to promote the disclosure, and protection of information which is identified as Proprietary Information by the Owner. In the event of such a disclosure, the Members agree that the Owner, prior to such disclosure, will advise the intended Recipient of the sensitivity of the Proprietary Information to be discussed

and/or disclosed and the Recipient shall verbally agree or decline to receive the Owner's Proprietary Information. In such cases where the Recipient agrees to receive owners Proprietary Information, Owner will notify and inform Recipient as required herein. A record, capable of producing an audit trail will be maintained by both the Owner of the Proprietary Information and the Recipient. If for any reason, the intended Recipient declines to receive Owner's Proprietary Information which is deemed by the Consortium Management Committee (CMC) to be necessary to further the goals of the applicable IPP/APPs, said intended Recipient's level of participation in a given research project may be (i) diminished to an extent where said participation is excluded from access to the proprietary data and/or subsequent research findings or (ii) eliminated as may be determined by the CMC in accordance with the terms and conditions of the Agency Award Instrument. All reasonable efforts will be made by the CMC to equitably resolve and/or mitigate the impact of (i) and (ii) above resulting from a Member(s) inability to accept and protect the Owner's Proprietary Information.

9.3 Each Member agrees to take appropriate action in accordance with Paragraph 1 above, to provide for the protection, safekeeping, and restricted use, reproduction, and disclosure of Proprietary Information received under this Agency Award Instrument.

9.4 No Member shall be liable for disclosure of any such Proprietary Information if the same is disclosed by the Recipient with the prior written approval of the Owner.

9.5 Notwithstanding the earlier termination of, or expiration of the term of, the Agency Award Instrument, Proprietary Information received hereunder shall be protected by the Recipient as required by this Article for a period of five (5) years from the date of receipt thereof or for five (5) years after the effective date of the Agency Award Instrument, whichever is later,

9.6 The standard of care to be employed by the Recipient shall be the same standard of care employed by the Recipient in treating its own Proprietary Information of like sensitivity. However, under no circumstances shall the degree of care be less than reasonable. Furthermore, immediately upon discovering the loss or unauthorized disclosure of Proprietary Information received, the Recipient shall notify the Owner thereof and take all reasonable steps to retrieve and prevent further disclosure of such Proprietary Information.

9.7 In the event and to the extent that Proprietary Information received under the Agency Award Instrument: (i) is or becomes publicly available without breach of this Agreement; or (ii) was, and can be shown by written records to have been, known to the Recipient, free of any obligation to keep confidential and free of any restrictions on use and disclosure, at the time of its receipt hereunder from the other Member; or (iii) is rightfully received by the Recipient from a third party without breach of other agreements; or (iv) is and can be shown to have been independently developed by employees of the Recipient not having access to such Proprietary

Information, or (v) is disclosed by the Owner to any third party, including the U.S. Government, without restriction upon its further disclosure, the Receiving party shall not be liable for disclosure of such publicly available, known, third party disclosed, or independently developed or owner-disclosed information. Proprietary Information, if required, may be disclosed pursuant

to applicable law, regulation or court order, provided that the Recipient will use reasonable efforts to afford the Owner an opportunity to limit or restrict such disclosure, or to obtain an appropriate protective/secrecy order with respect thereto.

9.8 It is understood and agreed that Proprietary Information received under the Agency Award Instrument may be disclosed by any Recipient to the Agency in support of on-going research or in support of subsequent APPs provided the disclosure documentation (medium) containing the Proprietary Information bear restrictive legends such as:

“This document contains trade secrets, commercial or financial information that is privileged or confidential. The disclosure of such information is prohibited under the Freedom of Information Act (5 U.S.C. Sec. 552) and other statute(s) prohibiting disclosure (e.g., 18 U.S.C. Sec. 1905).”

9.9 Proprietary Information received under the Agency Award Instrument may be used by the Recipient in the performance of any grant, contract or other award in the program only as is authorized in writing by the Owner.

9.10 Nothing contained in this Article shall be construed as granting or conferring any rights by license or otherwise in any Proprietary Information disclosed under the Agency Award Instrument.

9.11 This Article shall benefit and be binding upon the Members hereto, and the rights and obligations under this Article shall not be sold, assigned, nor otherwise transferred. Notwithstanding the foregoing, a Member may assign its rights and obligations under the Agency Award Instrument in their entirety to the purchaser of substantially all of the Member's business to which the subject matter of this Article relates subject to approval of the Agency and subject to return of any Proprietary Information of another Party which objects to transfer of it's Proprietary Information to the assignee.

9.12 IN NO EVENT ARISING FROM OR CONNECTED WITH THIS ARTICLE OF THE INFORMATION DISCLOSED HEREUNDER SHALL ANY PARTY BE LIABLE TO THE OTHER FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

ARTICLE 10 TERM OF THE AGREEMENT

The term of these Articles will commence upon the effective date and continue through the period of performance of the Agency Award Instrument. Continuation of the Agency Award Instrument is subject to the availability of funds.

ARTICLE 11 MODIFICATIONS TO THE ARTICLES

Any Party who wishes to modify these Articles will, upon reasonable notice of the proposed modification to the other Members, confer in good faith with the Members to determine the desirability of the proposed modification. Modifications will not be effective until approved by a

simple majority vote of the CMC, the CAM approves such modification, and the Grants Officer has issued a modification to the Agency Award Instrument reflecting such change.

ARTICLE 12 PUBLIC RELEASE OR DISSEMINATION OF INFORMATION

12.1 Open Publication Policy - Notwithstanding the reporting requirements of the Agency Award Instrument, the parties favor an open-publication policy to promote the commercial acceptance of the technology developed under the Agency Award Instrument, but simultaneously recognize the necessity to protect proprietary information.

12.2 Prior Review of Public Releases - Members agree to confer and consult with each other prior to publication or other disclosure of the results of work under the Agency Award Instrument to ensure that no classified or proprietary information is released. Prior to submitting a manuscript for publication or before any other public disclosure, each Member will offer the other Member(s) ample opportunity (not to exceed 30 days) to review such proposed publication or disclosure, to submit objections, and to file application letters for patents in a timely manner. It is herein agreed that except for the disclosure of basic information regarding the Agency Award Instrument such as membership, purpose and a general description of the technical work, the Member(s) will submit all proposed public releases to the Principal Member for Integration, and the Principal Member for Integration will coordinate with the CAM for comment prior to release. Public releases include press releases, specific publicity or advertisement, and articles for proposed publication or presentation.

ARTICLE 13 DISCLAIMER OF WARRANTIES AND CERTAIN LIABILITY

13.1 No Warranties - Except as explicitly set forth in these Articles the Members disclaim any warranties including any implied warranty of merchantability or fitness for a particular purpose for actions, omissions, technical information, data or products developed in pursuit of the objectives of the consortium.

13.2 Relationship of the Members - The members are bound to each other by duties of good faith and reasonable efforts in achieving the goals of the MAST CTA. Joint and severable liability shall not attach to the Members. Therefore, no Member shall be responsible for the acts or omissions of another member, but shall be only responsible for the actions of their employees.

13.3 Liability Disclaimer - Members disclaim any liability for consequential, indirect, or special damages. In no event shall a Member's liability under these Articles exceed the funding it has received from the Agency Award Instrument up to the time of incurring such liability.

ARTICLE 14 COMMUNICATION

Any notices or other communications required or permitted thereunder shall be deemed sufficiently given if hand-delivered, sent by overnight carrier, or by certified first class mail postage prepaid to the following address for each Member:

(Enter members address and point of contact)

ARTICLE 15 WAIVER OF RIGHTS

Any waiver of any requirement contained in these Articles shall be by mutual agreement of the Consortium Members. Any waiver shall be reduced to writing and a copy of the waiver shall be provided to each Member. Failure to insist upon strict performance of any of the terms and conditions hereof, or failure or delay to exercise any rights provided herein or by law, shall not be deemed a waiver of any rights of any Member hereto.

ARTICLE 16 LIABILITY

No Member shall be liable to another Member for any property belonging to the latter that has been consumed, damaged, or destroyed in the performance under the Agency Award Instrument, unless it is due to the negligence or misconduct of the former Member or an employee or agent of same.

ARTICLE 17 SEVERABILITY

If any clause, provision or section of these Articles are held illegal or invalid by any court, the invalidity of such clause, provision or section shall not affect any of the remaining clauses, provisions or sections herein and the Articles shall be construed and enforced as if such illegal or invalid clause, provision or section had not been contained herein.

ARTICLE 18 FORCE MAJEURE

No Member shall be in breach of these Articles for any failure of performance caused by any event beyond its reasonable control and not caused by the fault or negligence of that Member. In the event such a force majeure event occurs, the Member unable to perform shall promptly notify the other Member and shall in good faith maintain such partial performance as is reasonably possible and shall resume full performance as soon as is reasonably possible.